

Bruce Fiene

Program Manager
The Open Source Service Agent (OSSA)
National Air Intelligence Center
Hebble Creek Rd St9
Wright-Patterson AFB, OH 45433-5609
Telephone: 513-257-6219
FAX: 513-257-9888
Internet: brf53@naic.wpafb.af.mil

Open Source Service Agent (OSSA) in the intelligence community's Open Source Architecture

The Community Open Source Program Office (COSPO) has developed an architecture for the intelligence community's new Open Source Information System (OSIS). The architecture is a multi-phased program featuring connectivity, interoperability, and functionality. *OSIS is based on a distributed architectural concept. The system is designed to function as a virtual entity.* A Limited Operational Capability (LOC) began in July; most of the services will be online in September, 1994. OSIS will be a restricted (non-public), user-configured network employing INTERNET communications. Privacy and authentication will be provided through firewall protection. Initial intelligence community agencies on the OSIS network include: CIA, NSA, DIA, COSPO, FBIS, NAIC, and NPC. This group will be expanded to several additional agencies including the following: NMIC, NGIC, DMA, SOCOM JIC, ACOM JIC, DOE, FBI, State/INR, and MCIA. Connection to OSIS can be made through any server on the INTERNET or through dial-up modems *provided the appropriate firewall authentication system is installed on the client.*

Several agencies' OSIS nodes will contribute to OSIS functionality by providing databases and services of common concern for the community. NAIC, as Executive Agent for the COSPO, will prototype an overarching concept for LOC functionality. NAIC's design is generic and modular so that some or all capabilities can be duplicated as needed at other OSIS nodes. OSSA is a "Gateway to the World of Open Sources." It has four major components: 1) the Storefront, 2) the National Databases, 3) the Analyst and Production Interface and 4) the Open Source Requirements Processing System.

The Storefront provides the capability to *locate, retrieve and share* information. Catalogs such as the Capabilities and Coverage Database (CCDB), Database Recommendation System (DBRS), Gray Literature Online Catalog (GLOC), and Union or Distributed Catalogs provide the ability for *locating* information. The DBRS will initially contain descriptive information on over 6000 electronic databases. It will provide a prioritized list of recommended electronic database sources based on a user-defined query. The GLOC will provide descriptions and references to collections of gray information. It will include pointers to federal government libraries and numerous other commercial collections. The Union or Distributed Catalogs will use intelligence community library automation software to provide locations and card catalog descriptions of the holdings of all DoD intelligence production centers. The storefront also features a Tools Recommendation System (TRS) which contains a database of descriptive information on commercial and government tools used in the community for manipulating information. The initial database

inputs were developed by the Advanced Information Processing and Analysis Steering Group (AIPASG). The TRS will provide prioritized recommendations on which tool might best be used for a particular user specified task.

The National Databases of common concern are online holdings or reference databases of the intelligence community. These include massive databases such as the DIA sponsored CIRC database at NAIC. CIRC contains over 10 million references to technical and military literature (S&TI and GMI), 85% open source. CIRC services include weekly profiling of new accessions to over 1300 government users and online database access to over 100 government organizations. CIRC is part of a tri-service DIA program called DIISP (Defense Intelligence Information Services Program) for which NAIC is the Executive Agent. DIISP services also include the Foreign Science Library which contains the original documents for all the open source portions of the CIRC database. In a cooperative effort with FBIS, NAIC has hosted a database of the JPRS (Joint Publications Research Service) products and FBIS Daily Reports. This database is full text and online. NAIC is also hosting a new database, CONF, on world-wide technical conferences and symposia. Information for the database is derived from INTERNET sources. NAIC will soon host the full text of their translated documents and will host the TRAN database providing a DoD-wide reference list of translated documents. All information services provided by NAIC are based on a demand (pull) either through user specified profiling and/or user access to online information. Additionally, intelligent gateways provide access to numerous ***commercial, US Government, INTERNET, and academic databases.***

The Analysis & Production Interface will provide online access to tools, data storage for analysis and information on how to use them. The user will be able to either run the GOTS or download it for local application but will only be able to run the COTS. The ability to use the OSSA software and storage to run applications has particular appeal for smaller intelligence community agencies who do not have the resources to afford a robust ADP infrastructure. This OSSA feature tends to level the playing field for them.

The Open Source Requirements Processing System will help define and manage information requests from the local libraries within the community, to the COSPO information needs process, to the community's open source acquisition system. The Information Requirements Management System (IRMS) will automate the submittal and tracking of analysts' substantive information needs at the local agency library as they attempt to fulfill the requirement through local holdings, community holdings, local acquisitions or community acquisitions. Similarly, the Software Requirements Management System (SRMS) will automate the tracking of analysts' tools needs as attempts are made to share GOTS packages, create awareness of COTS packages or submit requirements for new tools development. The Open Source Module of the Collection Requirements Management System (CRMS) tool interfaces with the IRMS to automate the agencies' collection requirements manager's requirements process for specifying and forwarding information gaps to the COSPO level and then monitoring collector reporting for the requirements satisfaction. It also automates the collection evaluation and feedback process.

About the Speaker

Upon completion of graduate studies at the University of Arizona in 1971, Bruce Fiene served as an Air Force analyst at the National Air Intelligence Center (NAIC), at Wright-Patterson Air Force Base. Upon leaving the Air Force in 1976, he continued working at NAIC as a civilian physicist. He specialized in reporting on developments in foreign laser weapon technology. In 1993 Mr Fiene took a position in the Information Exploitation Division at NAIC to participate in open source development activities. He is currently the Open Source Service Agent Program Manager. Mr Fiene is the NAIC member of the STIC Open Source Subcommittee, for which he is also the Executive Secretary. Mr Fiene is a member of the Advanced Information Processing and Analysis Steering Group and the Interagency Gray Literature Working Group, for which he also chairs the Collection Subgroup. In 1991, Mr Fiene became an Adjunct Professor for the Joint Military Intelligence College teaching a class on the exploitation of open source information in all-source analysis. Mr Fiene is a member of the American Association of Physics Teachers, the American Society for Information Science, and the Aircraft Owners and Pilots Association.

**OPEN SOURCE SERVICE AGENT
&
THE INTELLIGENCE COMMUNITY'S
OPEN SOURCE ARCHITECTURE**

Bruce Ronald Fiene

*Program Manager
Open Source Service Agent (OSSA)*

**Data Exploitation Directorate
Information Exploitation Division**

**NATIONAL AIR INTELLIGENCE CENTER
WPAFB, OHIO**

OVERVIEW

SYSTEM REQUIREMENTS

OPEN SOURCE INFORMATION SYSTEM (OSIS)

OPEN SOURCE SERVICE AGENT (OSSA)

NAIC LIBRARY SERVICES AND STILAS

SYSTEM REQUIREMENTS

Distributed

Connectivity

Interoperability

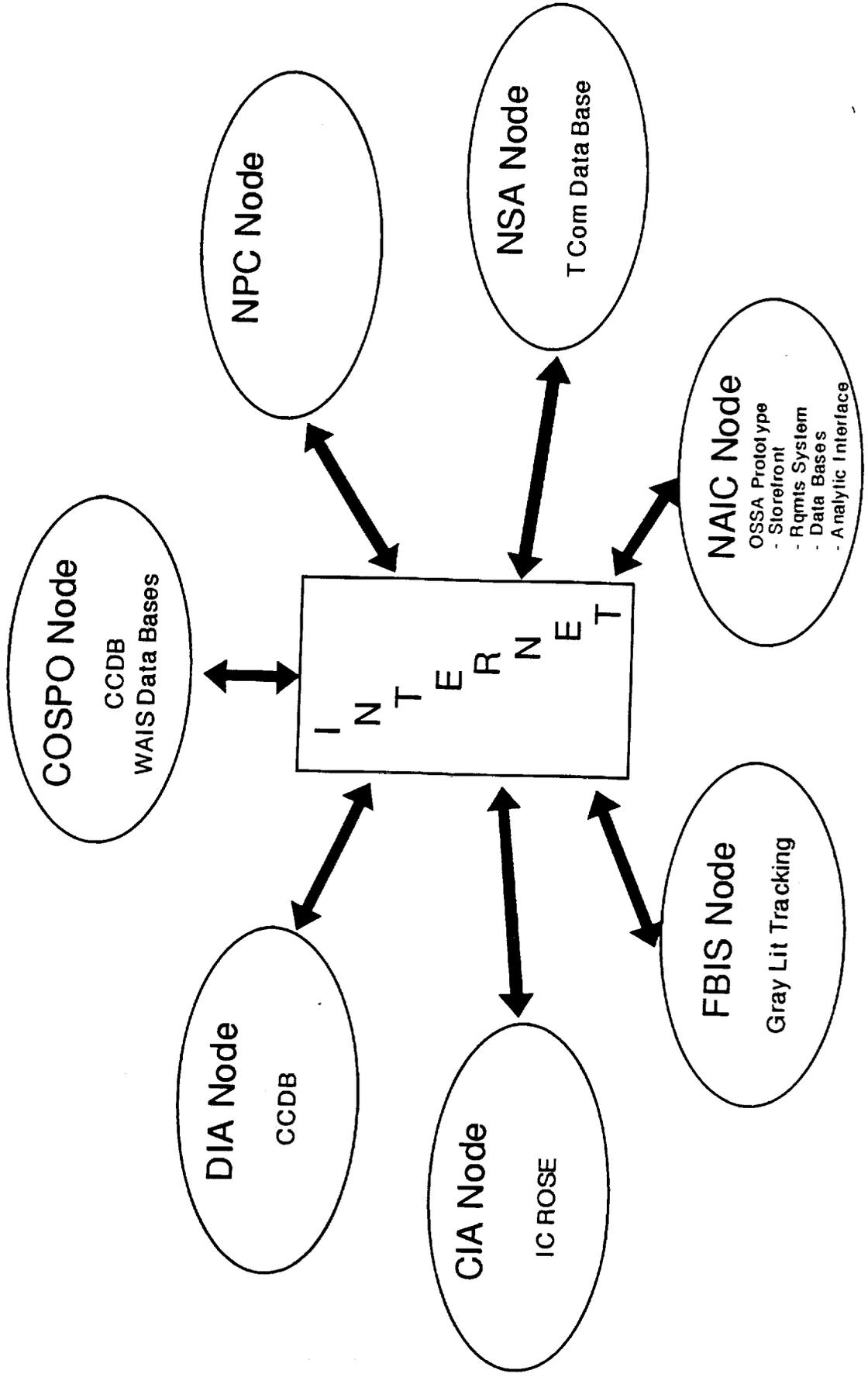
Functionality (Automated Tools)

Databases

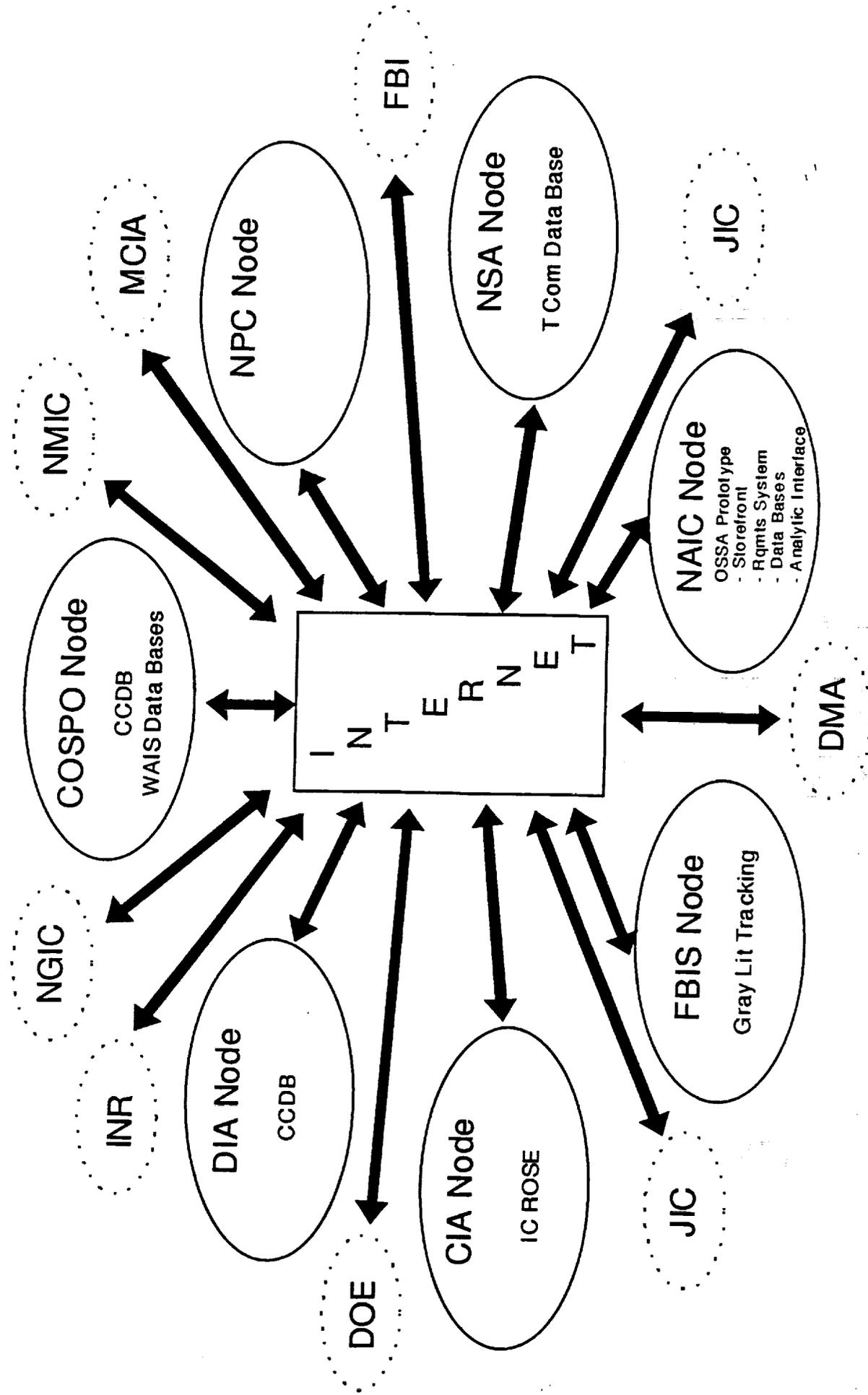


OSIS

Open Source Information System

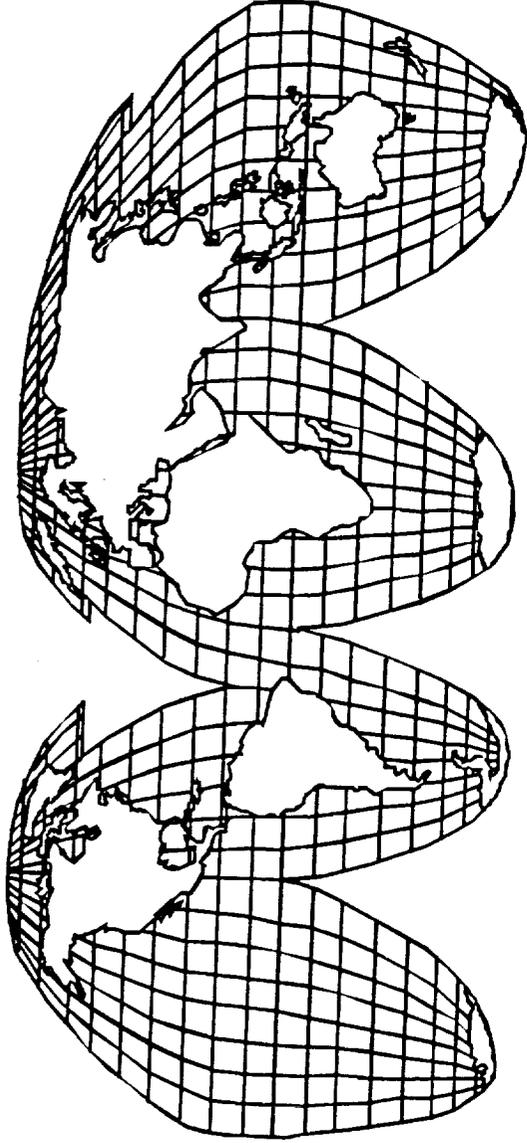


OSIS FY 94 Additional Nodes



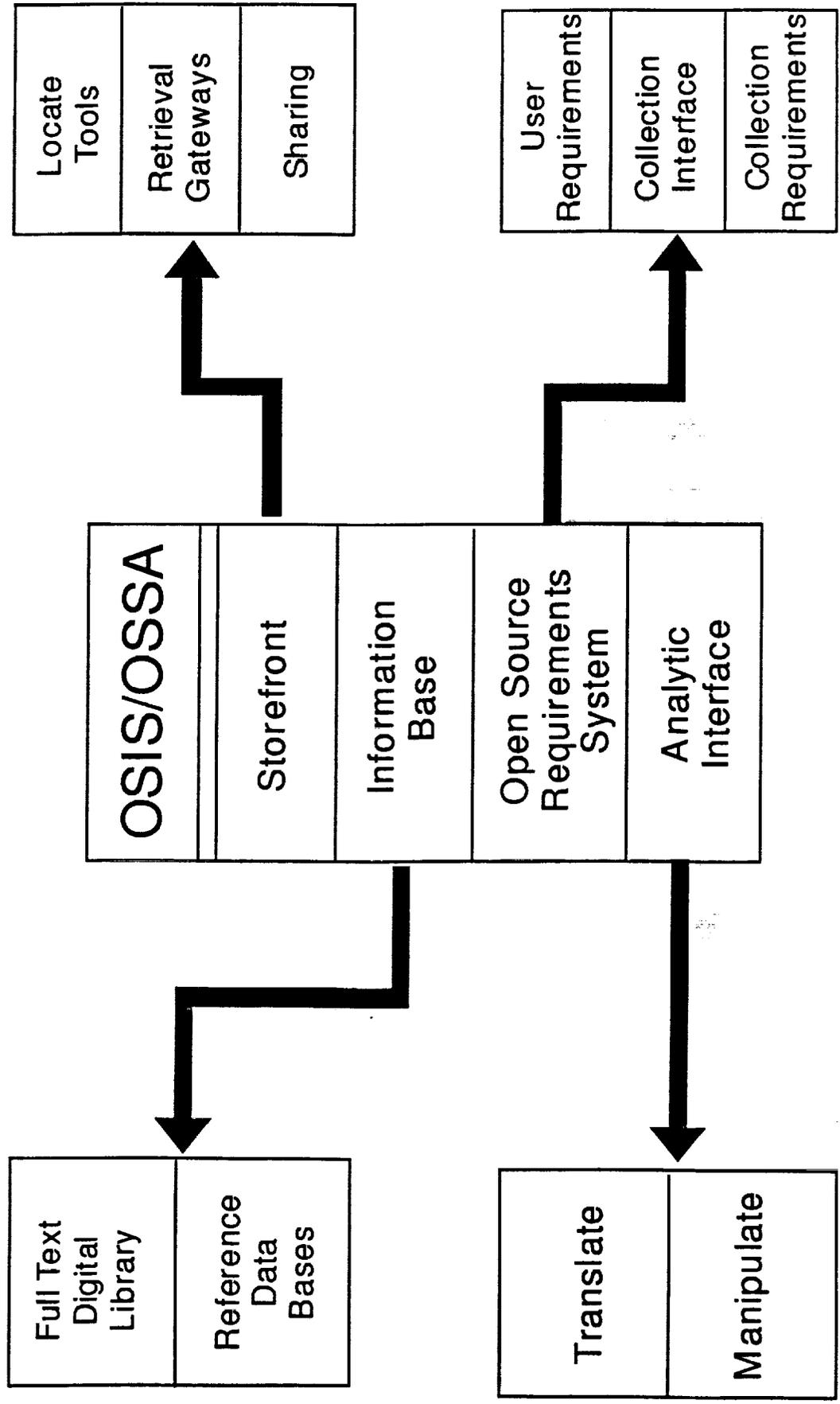
OSSA

Gateway to the world

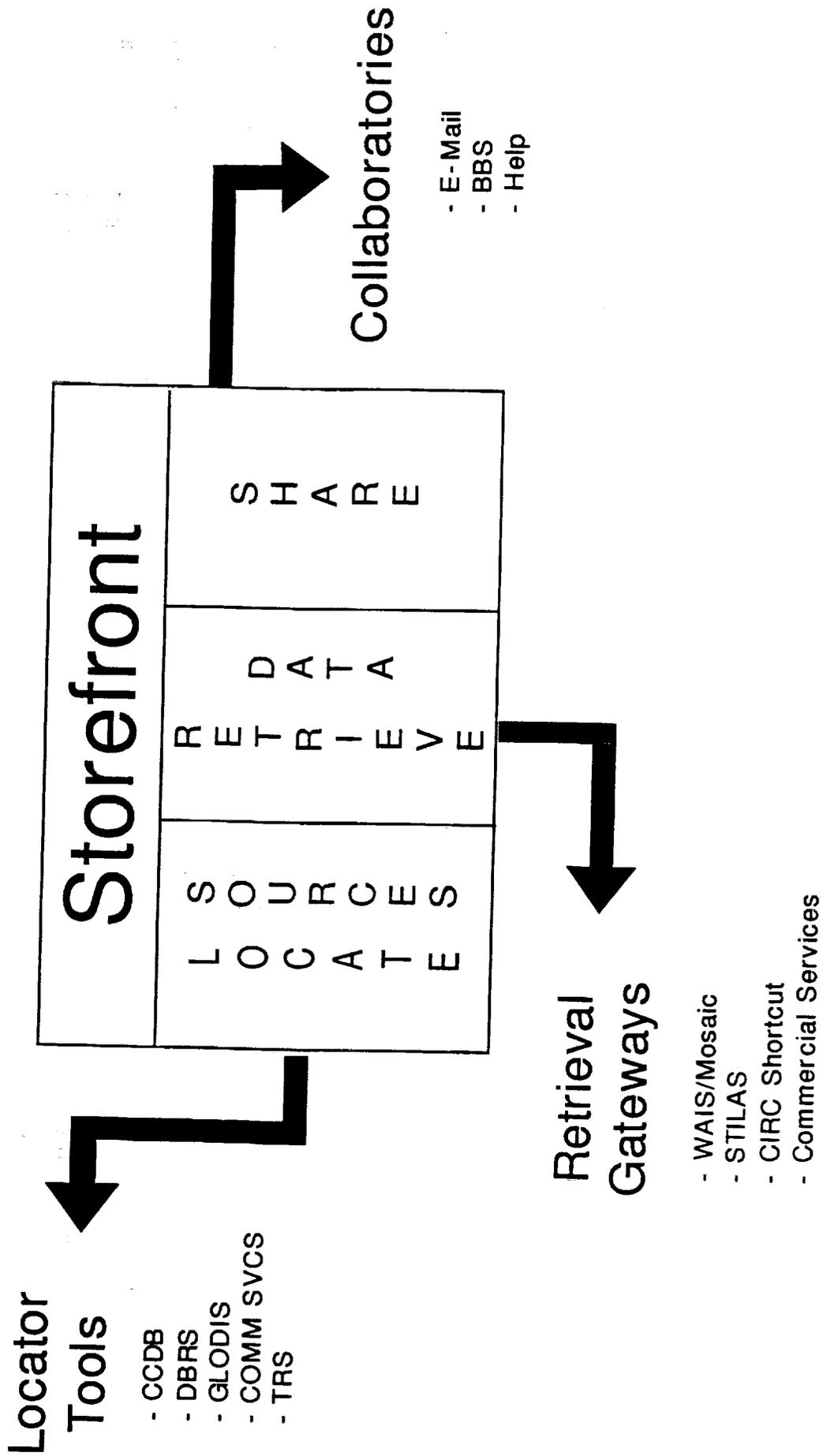


of open sources

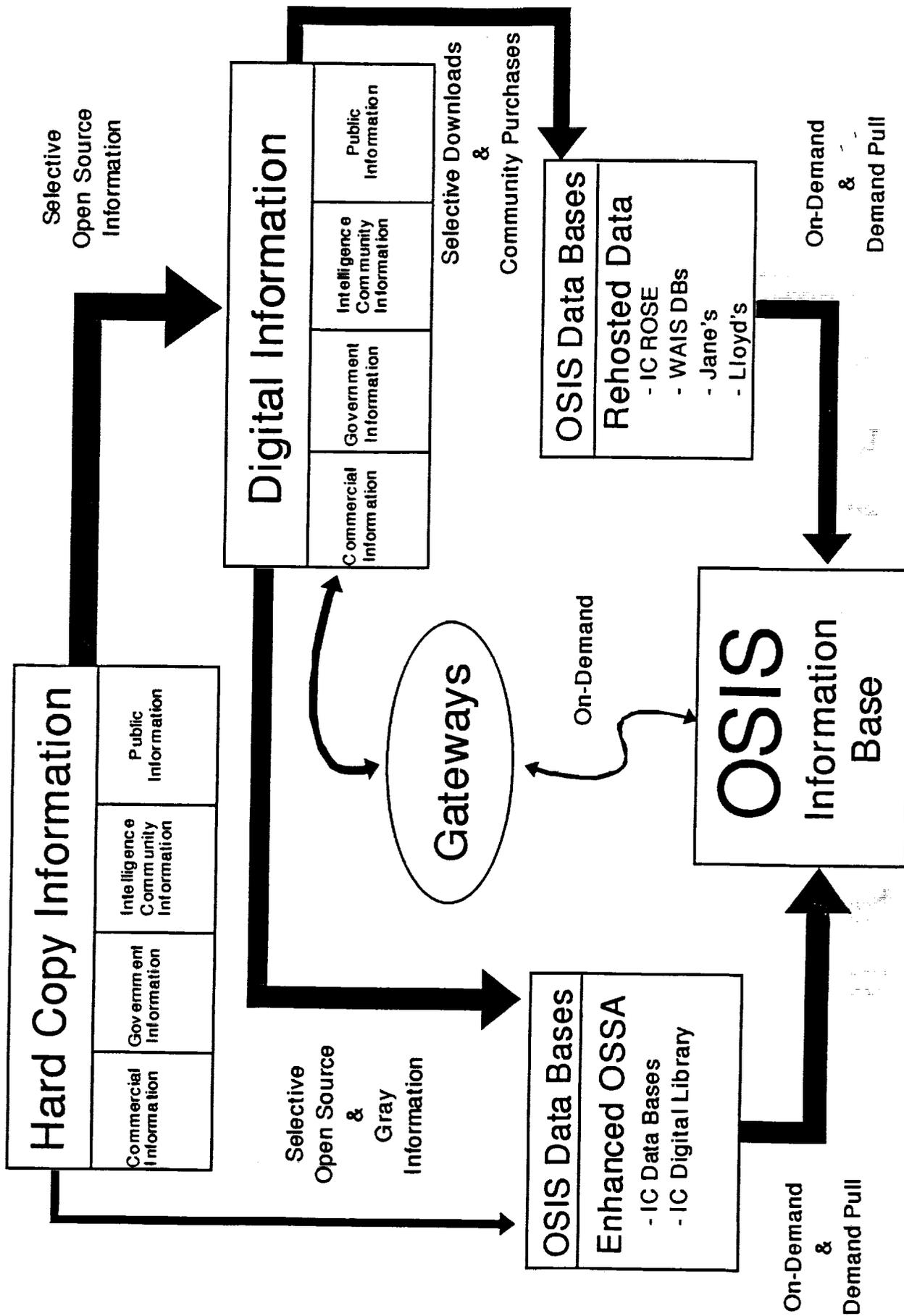
OSIS Functionality



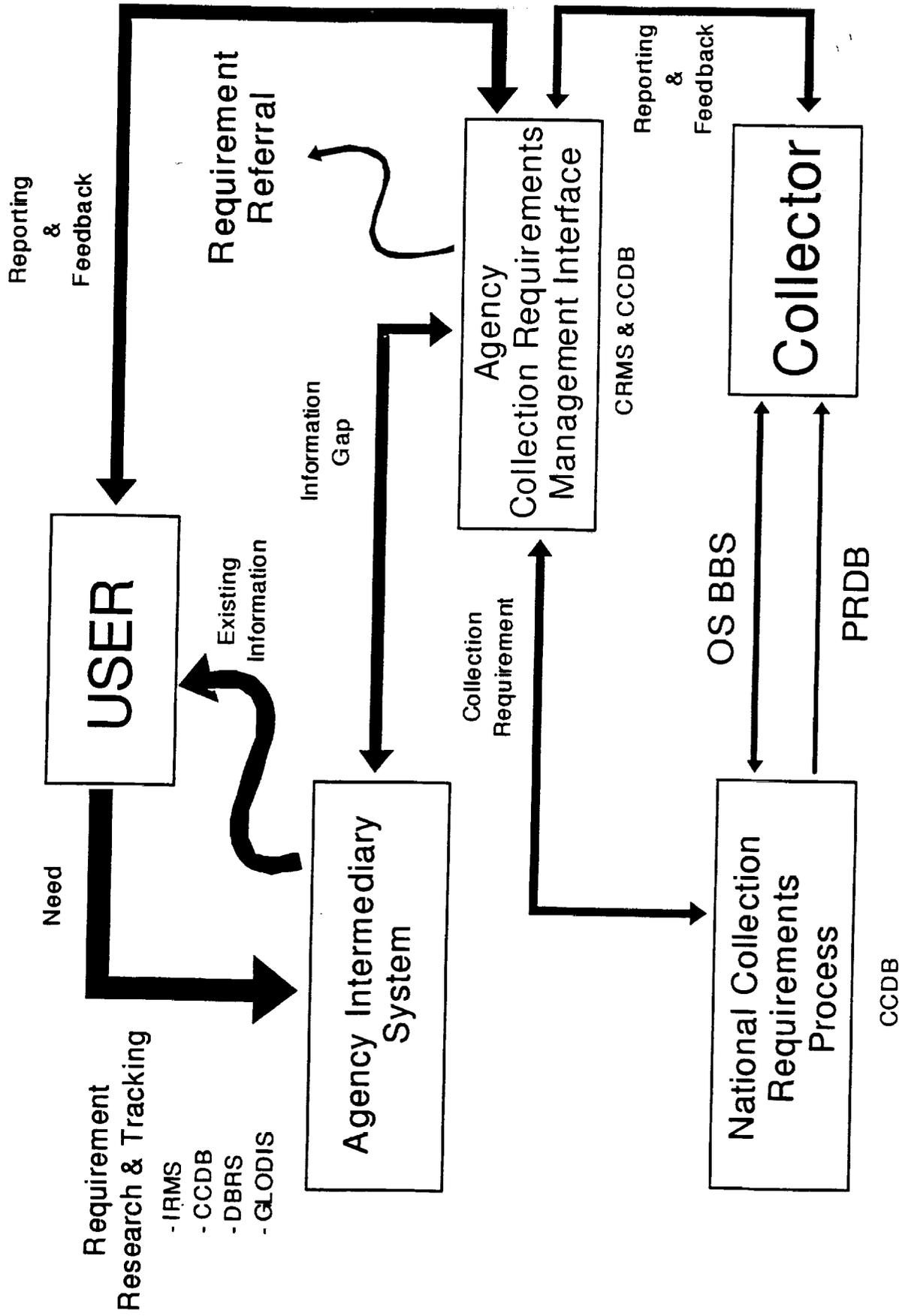
Storefront Services



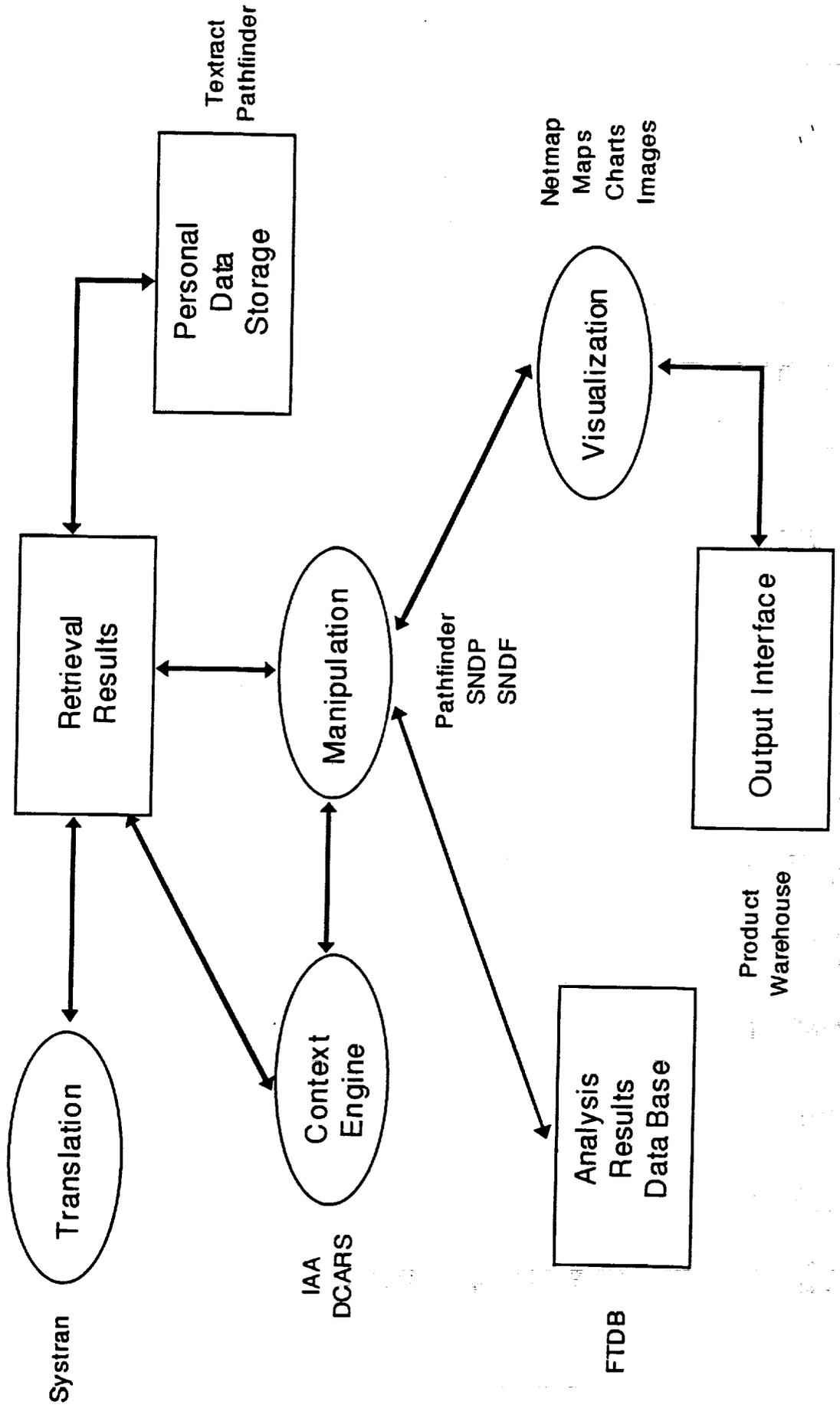
Information Base



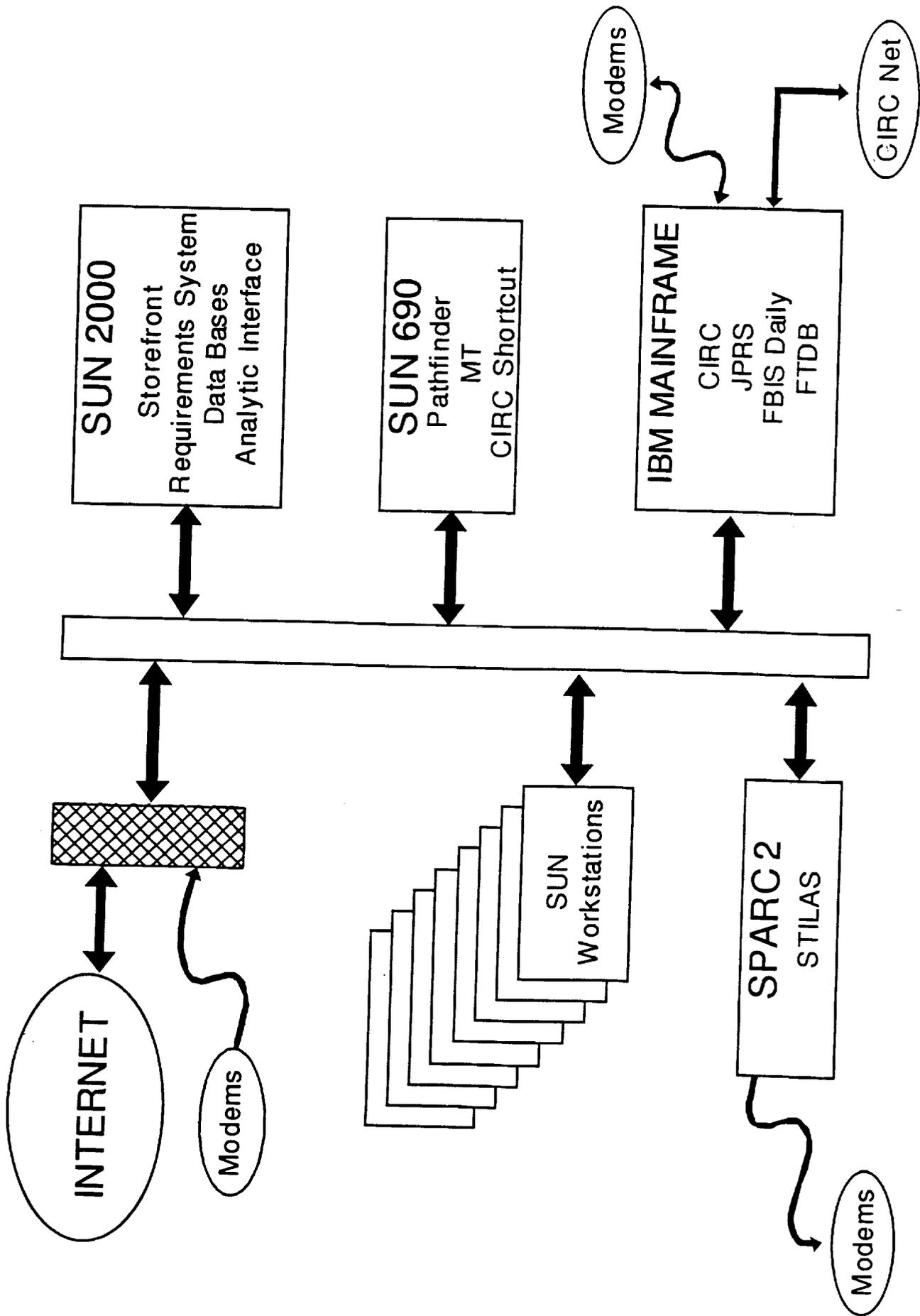
Requirements Management



Analytic Interface



NAIC OSIS Node & LAN



OSSA Replication

Generic Cookie Cutter Design

- Storefront
 - DBRS
 - TRS
 - STILAS
 - WAIS
 - CIRC Shortcut
 - Mail
 - BBS
 - Help
- Requirements Management
 - IRMS: INDB & SNDB
 - CRMS
- Analytic Interface
 - Machine Translation
 - Pathfinder
 - SNDP

The CIRC "System"

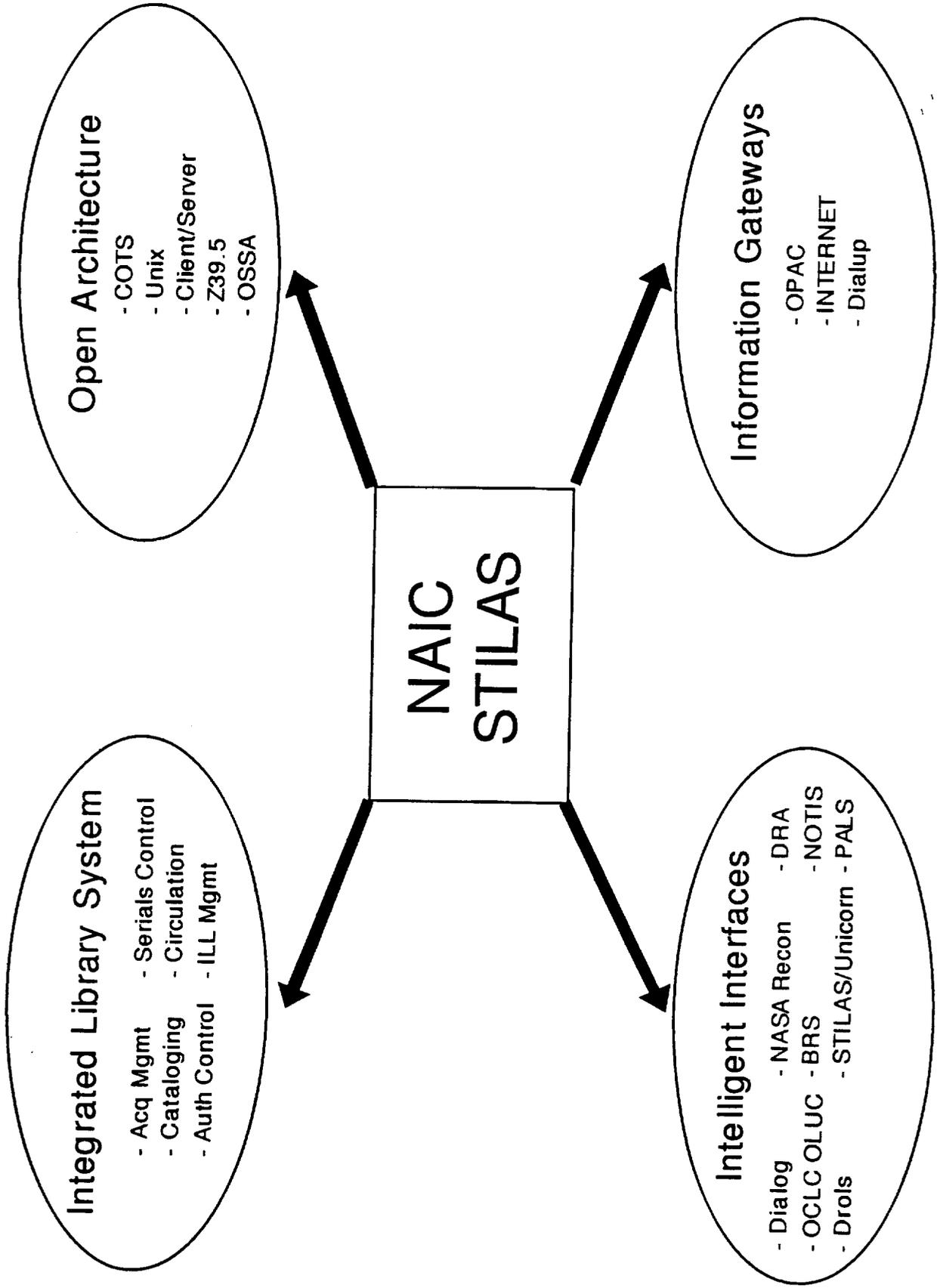
- Data Bases
 - 10 S&TI/GMI (Open Source, Gray, Classified)
 - JPRS
 - FBIS Daily Reports
 - Conference (INTERNET)
 - TRAN
- Tools
 - Profiles
 - Search
 - Cross Reference
- Potential
 - Translations
 - Gray Literature Reference DB
 - VINITI

Machine Translation

- Dictionary Systems
 - Mature: Russian, French, German
 - Usable: Spanish, Portuguese, Italian
 - Beta Test: Japanese
 - Development: Chinese
 - On Hold: Arabic

- Hardware Systems
 - IBM Mainframes
 - Batch
 - Interactive
 - NAIC LANS
 - Modems
 - PS3/370 w/ VMS Emulation
 - Unix Conversion

Library Services



The STILAS System

- Library OPACs
 - NAIC
 - AFIT
 - Wright Labs
 - Phillips Labs
 - RSIC
 - Air University
 - CIA MAXCESS
 - OhioLink
 - University of Dayton
 - Wright State University
 - Dayton/Montgomery County Libraries
 - OCLC OLUC
 - World Wide OPAC Records (350)
- Table of Contents Data Bases
 - FAXON Finder
 - CARL UnCover

The STILAS System (Continued)

- Commercial Services
 - Dialog
 - ORBIT
 - BRS
 - Mead Data Central - NEXIS/LEXIS
 - Research Base
- Government Data Bases
 - CIRC
 - DTIC DROLS TR
 - NASA Recon
 - NIST
- Subject Specialty Systems
 - Agriculture/Nutrition
 - Humanities
 - Economics
 - Technical

The STILAS System (Continued)

- INTERNET Navigational Tools
 - Archie
 - Gopher
 - Wide World Web
 - WAIS
 - NetFind
- Directory Services
 - Knowbots
 - White Pages
- FREENETS/Bulletin Boards/Gateways
 - NTIS FEDWORLD
 - Cleveland FreeNet
 - Dayton FreeNet
 - FedLink ALIX
 - OhioLink
 - AFIT Gateway

STILAS

The Future

- On-Ramp to National Information Highway
- FSL - Unclassified System
- Classified Network
 - NAIC
 - NMIC
 - NGIC
 - MSIC
- Classified Union Catalog
- Improved Gateways

Faint, illegible text covering the majority of the page, appearing as a grid of small, scattered characters and symbols.

